Real Time Casualty Assessment (RTCA) for Operational Testing

PM ITTS STOC Industry Conference

7 - 8 August 2001

Presenter:

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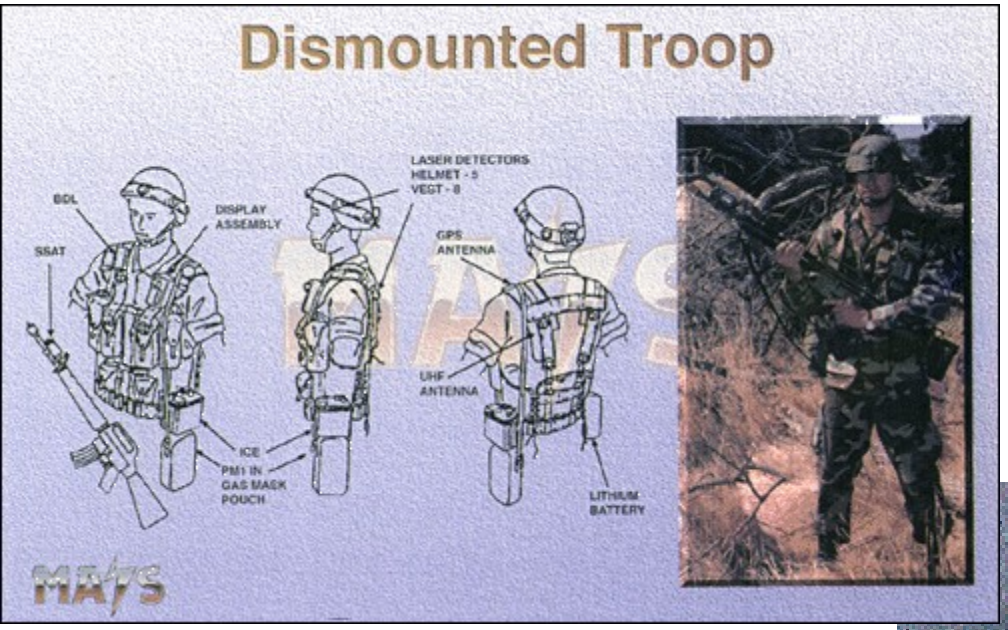
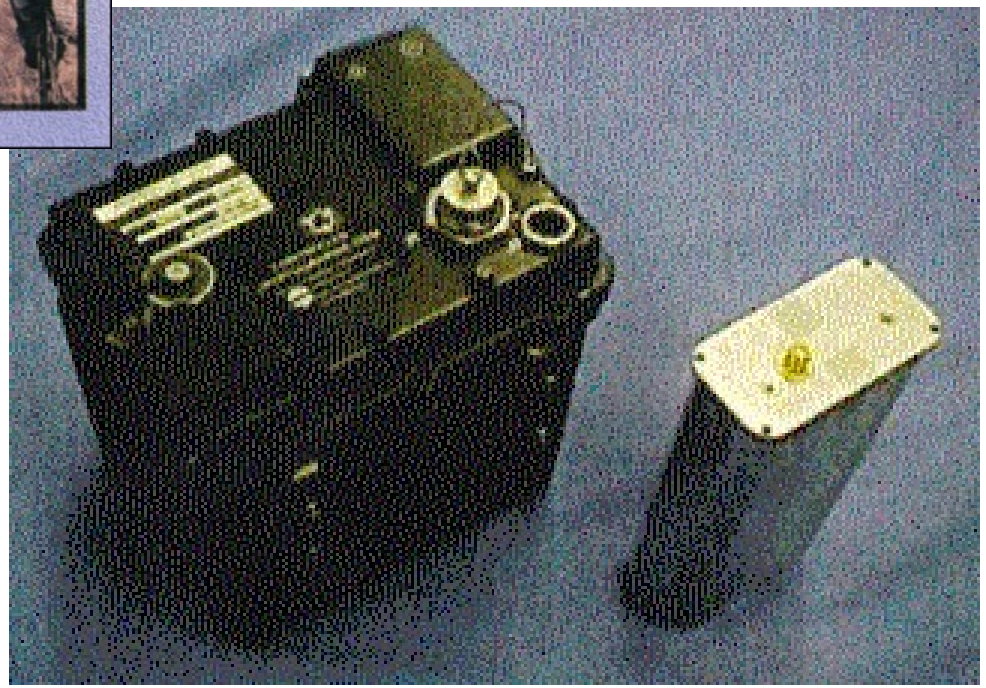
BACKGROUND

- The current RTCA system does not:
  - inter-operate with live, virtual, and constructive simulation systems supporting evolution of Army Transformation doctrine,
  - support operations in Military Operations Urban Terrain (MOUT) environments
  - allow adequate non line-of-sight
  - accept human factors interface

- The test community Real Time Casualty Assessment (RTCA) must support a number of future complex Operational and Force-on-Force Test requirements to include Comanche, Objective Individual Combat Weapon (OICW), Objective Crew-served Weapon (OCSW), Line-of-Sight Anti-Tank (LOSAT) and Land Warrior

MAIS MINIATURIZATION





SPECIFIC AREAS OF INTEREST (FY02-03)

- **Modify legacy system:**
  - **Integrate into Weapons Performance Module (WPM):**
    - **Aspect angle**
    - **Exposure**
  - **Retrofit Light Weight Dismounted Troop Player Units with new Bi-directional Data Link**
  - **Finalize Common Vehicle Instrumentation Initiative (CVII)**
- **PAIRING IMPROVEMENTS (Alternative to current laser pairing technology)**
  - **Non-Line-of-Sight for large vehicular platforms (Comanche, ADA)**
  - **Non-Line-of-Sight for small arms (Mk-19, M203)**
  - **Visual feedback for tracers/impact for small arms**
- **TESS-Objective MAIS Interface**
  - **Comanche TESS**
- **MAIS-Land Warrior Interface**
- **MAIS-MOUT Interface**
- **Objective MAIS**
  - **Briefed next**

ACQUISITION/CONTRACTING

Strategy

- **Five Year Management Execution Plan (MEP) was approved in May 2001**
- **Multiple awards in a Full & Open Competition environment except when specific Small Business Set- asides can be identified**
- **Acquisition Areas of Interest:**
  - Digital communications
  - Wireless technologies
  - Imaging simulation
  - Terrain databases
  - Battlefield pairing
- **Current technology provider:**
  - Advanced Countermeasure Systems (ACMS)

Issues

- **Seeking industry's technical recommendations**
- **Upcoming Test Requirements in flux**
- **Government versus Industry as the Systems Integrator**
- **Migration timelines from R&D to Production**

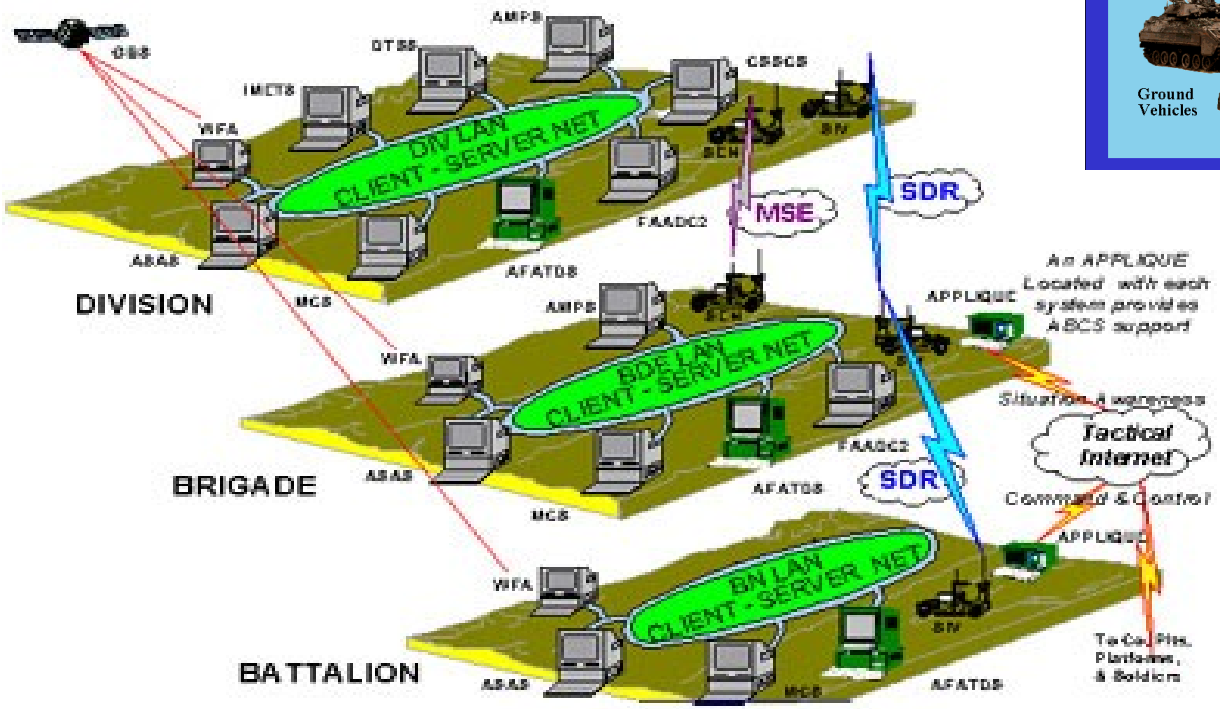
ACQUISITION TEAM

NAME	TITLE	Organization
Bob Wolfinger	Senior Project Director	IMO
Craig Janisz	Project Director	IMO
Tom Newton	Systems Engineer	Engineering
Sue-Ellen Sahagun-Dorland	Contracts Specialist	Acquisition
Kathy Payne	Life Cycle Support	Operations
Ivette Feliciano	Cost Analyst	Resource Management
Ross Hempstead	Senior Program Analyst	AEgis Technologies
Eddie Meadows	Senior Simulations Engineer	AEgis Technologies
James Hutson	Senior Cost Analyst	AEgis Technologies
Alexandra Charles	Program Analyst	AEgis Technologies
Arthur Grunwald	Lead Analyst	AEgis Technologies

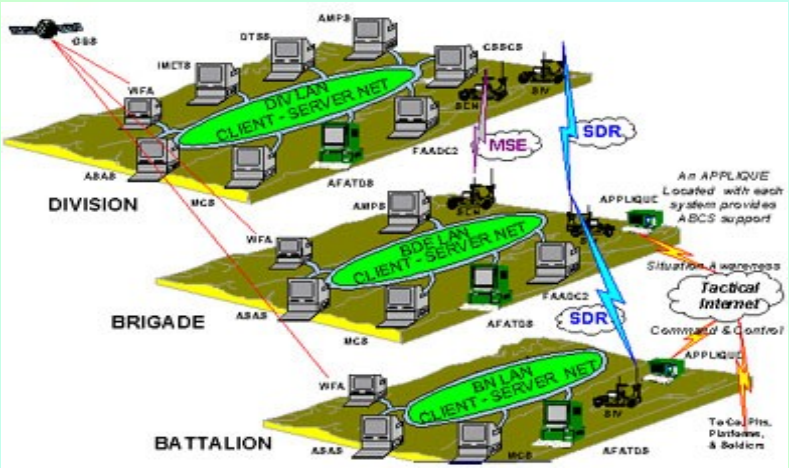
POINTS OF CONTACT: Bob Wolfinger, (407) 384-5196,

RTCA FOR OPERATIONAL TEST

INSTRUMENTATION XXI



PROGRAM DESCRIPTION



CUSTOMER/ USERS

U.S. Army Test and Evaluation Command (ATEC)/Operational Test Command(OTC) for Operational and Force-on-Force testing of:

- M1A2 SEP
- M2A3 IOTE
- Canadian LAV-III
- FBCB2 (?)
- Land Warrior (?)
- LOSAT
- Comanche

DESCRIPTION

• Enables Measurement and Analysis of Army Transformation
Digital Battlefield Initiatives & Provides Full Live, Virtual,
and Constructive Interplay Enabling Synthetic Testing to
Complement Live Operational Testing
• Virtually Replicates a Greater Number of Troop Resources in
Force-on-Force Testing and Training Events
• Enables Operational Testing tools to Interface & Interact With
Other Live, Virtual, and Constructive Models &

FUNCTIONAL DATA

Instrumentation XXI is currently pursuing DITSCAP Certification Level III via the MAIS C3 Redesign effort.

Applicable Standards:

- DITSCAP
- FIT
- Wireless LAN (Blue Tooth)
- Interface Control Documents

INSTRUMENTATION XXI
MASTER PROGRAM SCHEDULE/FUNDING

Fiscal Year	2001	2002	2003	2004	2005	2006	2007	2008	2009
Requirement Approval	▼								
Pairing Improvements									
Large Platforms		△———			▽				
Small Platforms		△———			——▽				
TESS-Objective MAIS Interface		△———			——▽				
MAIS-Land Warrior Interface		△———			——▽				
MAIS-MOUT Interface		△———			——▽				
	Each effort shown above will include two or more development/production phases.								
IOC/FOC									

Dollars in Thousands	Prior	2001	2002	2003	2004	2005	2006	2007	2008	2009
TOTAL Required	0	0	$$$$	$$$$	$$$$	$$$$	$$$$	$$$$	$$$$	$$$$
$ = <$1M										
$$ = $1M - $5M										
$$$ = $5M - $10M										
$$$$ = $10 - $20M										

SUMMARY

- **Work will include multiple STOC awards**
- **Small amount of modifications to current system but majority of work is directed at migration to objective system**
- **Focus on R&D efforts**
- **Scope of work centers on:**
  - **solving non line-of-sight pairing and cueing issues**
  - **preparing system to test new weapon systems**
  - **starting to field Objective MAIS system**